DEC STD 100-4 Product Change and the NCMR/Waiver Process

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ABSTRACT: This standard describes the exception management process to introduce a product change using a Nonconforming Material Reports/Waiver (NCMR). This standard details when the NCMR/Waiver may be used instead of the waiver process established in DEC STD 066-2 Waivers to Digital Design Standards. This standard must be used in conjunction with 76-65075-00, Procedure for Processing Non-Conforming Material and In-Process Waiver. This standard details the constraints required in the use of the NCMR/Waiver.

APPLICABILITY: This standard is mandatory for all Digital personnel who initiate, evaluate, approve, and implement changes to any product.

STATUS: APPROVED 26-Nov-1990; use VTX SMC for current status.

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CONTENTS

1 INTRODUCTION 1
1.1 PURPOSE 1

2 APPROVED USES OF THE NCMR/WAIVER FORM FOR PRODUCT CHANGE 1
2.1 MISUSE OF NCMR/WAIVER 1
2.2 ALLOWED EXCEPTIONS 2
2.2.1 Product Safety Problems 2
2.2.2 Loss or Contamination of Data Problems 2

3 USING AN NCMR/WAIVER FORM TO INTRODUCE A PRODUCT CHANGE 3
3.1 MINIMUM REQUIREMENTS 3
3.2 INFORMATION REQUIRED FOR THE NCMR/WAIVER FORM 3
3.2.1 Part C—"Cause for Rejection:" 3
3.2.2 Part D—"Recommended Corrective Action:" 3
3.2.3 Part E—"Recommended Disposition:" 4
3.2.4 Part F—"Disposition Approval:" 4
3.2.5 Part H—"Quality Control Follow-up:" 4

4 USING THE ECO TO SUPERSEDE/CANCEL AN NCMR/WAIVER 5

Appendix A REFERENCED DOCUMENTS 7

A.1 EL-Class Digital Documents 7

1 INTRODUCTION

The following exception management process shall be used to introduce a product change using a Nonconforming Material Reports (NCMR)/Waiver Form. This process shall not be used for any change to a product that causes the product to deviate from Digital's design requirements; such a change must be processed in accordance with *DEC STD 066-2 Waivers to Digital Design Standards*. Refer to 76-65075-00, *Procedure for Processing Non-Conforming Material and In-Process Waiver*, for a sample of the form and instructions in its use.

1.1 PURPOSE

This standard addresses the process that must be followed when an NCMR/Waiver will be used to introduce a product change prior to Engineering Change Order (ECO) approval. **These directions must be followed exactly**.

A product change introduced via an NCMR/Waiver without the approval of all members of the responsible Product Change Team is the responsibility of the originators/approvers. See EL-SM100-00, *DEC STD 100-0 ECO Process and Procedures*.

2 APPROVED USES OF THE NCMR/WAIVER FORM FOR PRODUCT CHANGE

The decision to use an NCMR/Waiver to introduce a change must be carefully considered. While allowing an exception to the operational norm, an NCMR/Waiver does not replace the need for an Engineering Change Request/Engineering Change Order; therefore, **the process of initiating the change order should occur concurrently with the preparation of the NCMR/Waiver**.

It is the intent of this standard to restrict the practice of using an NCMR/Waiver to introduce any other type of change (such as Enhancements, Cost Reductions, and normal Out of Specification changes); these types of change shall only be introduced using the ECO process.

Serious consideration must be given before using an NCMR/Waiver to introduce any product change other than for the recognized exceptions.

2.1 MISUSE OF NCMR/WAIVER

The practice of using an NCMR/Waiver Form to initiate product change and avoid ECO processing is not acceptable. **Such practice is contrary to Digital's standards and therefore shall not be allowed except as defined in this standard**. The use of NCMRs to introduce product change has never been an approved practice; it violates EL-SM100-00 DEC STD 100 and the guidelines of 76-65075-00.

According to *DEC STD 100-0 Policy and Requirements for the Product Change Process*, **a documented product change is required to change all documentation and products.** This requirement may be superseded in only two ways: one, by obtaining a Waiver to a Design Standard per DEC STD 066-2; or two, using an NCMR/Waiver in the manner described by this standard.

The 76-65075-00 specification does not authorize an NCMR/Waiver Form to be used in lieu of an ECO to introduce a product change.

2.2 ALLOWED EXCEPTIONS

The need for exceptions to the normal Product Change Process in limited instances is recognized by the Product Change Process Office as well as the Corporate Quality organization. These recognized exceptions are restricted to only those cases where extreme expediency is required by the Product Change Team to accomplish the following.

- Reduce the probability of injury or damage to personnel or equipment
- Correct possible equipment deficiencies that could cause either a loss of data or contamination of data for Digital's customers or users.

There are two recognized exceptions where an NCMR/Waiver Form may be used to introduce a product change without waiting for the approved ECO; however, it is important to recognize that both of these instances are *exceptions*. Failure to address problems in these categories may needlessly expose the Corporation to liabilities if they are not corrected in a forthright, expedient manner. Therefore, this exception process has been defined to allow quick, positive corrective action to be taken, thereby reducing any production stoppage that may have occurred. These *exceptions* are described below in subheads 2.2.1 and 2.2.2.

2.2.1 Product Safety Problems

An immediate corrective action for a safety problem may be implemented temporarily by using an NCMR/Waiver Form; however, not ALL safety problems will be implemented using this process. For the purpose of this standard, a "safety problem" is defined as any safety deficiency identified as a Type Code 1 ECO. (See DEC STD 100-1B.)

The Product Change Team and appropriate product safety personnel are responsible for making the best possible business and technical decision to correct a safety problem. A key aspect to be considered in this decision process is the selection of the most expedient method to implement the required corrective action and to reduce any element of risk to our customers/users. (Issues around ECO Effectivity/Break-in dates for safety problems will not be addressed specifically in the NCMR/Waiver Form exception process, but must be a factor in the decision-making process.)

2.2.2 Loss or Contamination of Data Problems

Corrective actions that solve problems that may inadvertently cause a loss of data or contamination of data may be temporarily implemented using an NCMR/Waiver. These problems must be identified by the Product Change Team as impacting data integrity, because there is no single, clear definition for such problems. The Product Change Team is responsible for making the best possible business and technical decision regarding the correction of such problems, and one of the key aspects of the decision-making process should be the selection of the earliest correction of the problem to reduce any element of data integrity risk to our customers and users.

3 USING AN NCMR/WAIVER FORM TO INTRODUCE A PRODUCT CHANGE

3.1 MINIMUM REQUIREMENTS

This section describes the minimum requirements for using an NCMR/Waiver Form to introduce a product change. These requirements are **mandatory,** not "guidelines"; they may not be ignored or omitted for the sake of expediency.

3.2 INFORMATION REQUIRED FOR THE NCMR/WAIVER FORM

The information specified in the following subheads does not replace any information already described as a requirement by 76-65075-00; instead, this information is required in addition to existing information requirements.

All required information must be provided and documented before a waiver may be approved and implemented. The required information is identified in the following subheads, which are classified according to sections of the NCMR/Waiver Form.

3.2.1 Part C—"Cause for Rejection:"

When introducing a product change, this section shall describe the problem that will be corrected. It shall contain a statement to the effect that an immediate product change is required to correct the existing deficiency; the exact wording is flexible, but it must accurately reflect the severity of the problem being addressed.

3.2.2 Part D—"Recommended Corrective Action:"

When used for a product change, this NCMR/Waiver Form section must also contain a new part revision for the product in addition to the required corrective action information. The new part revision must be obtained from the Product Change Team and assigned in accordance with the requirements of *DEC STD 012-0 Part Identification Standard*; it SHALL NOT be arbitrarily assigned by Manufacturing or Customer Service activities involved in the processing of an NCMR/Waiver Form.

All changes made to a product require re-identification of the product, such as a new part revision. Use of an NCMR/Waiver Form neither rescinds nor delays this requirement. Re-identification of the product by a new part revision at this juncture will allow other organizations, such as Customer Services, to easily identify this material should it become necessary to locate and segregate it.

If an additional change to a part revision specified in the NCMR/Waiver is required before the ECO is approved, a new NCMR/Waiver is required—**one NCMR/Waiver, one change, one (set of) documented part revision(s)**.

3.2.3 Part E—"Recommended Disposition:"

When the NCMR/Waiver Form is used for product change, two choices must be indicated: **WAIVER** and **OTHER**. In the space immediately adjacent to the **OTHER** category, one of the three following information elements must be provided.

a. Period of Coverage

A specific time period for the waiver's coverage shall be stated here; the time frame shall be specified in days and shall be defined as a "Not to Exceed" (NTE) statement.

Example: Valid NTE (Not to Exceed) 90 days.

The Product Change Team must specify the time frame.

Waivers that expire before an ECO is approved will require that a second waiver be approved to continue production/shipping.

b. Number of Units

The specific number of units for which the waiver is intended to be active.

Example: Valid for 100 units only.

The allowable quantity of units to be processed under the NCMR/Waiver must be specified by the Product Change Team.

c. Period of Coverage or Number of Units

It is acceptable to specify an "either-or" situation on the NCMR/Waiver.

Example: Valid for 90 days or 100 units, whichever occurs first.

In any of these instances, persons using this process are expected to supply reasonable estimates of the times and/or quantities needed until the actual ECO can be processed and approved. The Product Change Team is responsible for specifying a reasonable time period or quantity.

3.2.4 Part F—"Disposition Approval:"

Approval for a product change NCMR/Waiver is required from ALL Product Change Team members (that is, the Design/Support Engineer, the Manufacturing Engineer, and the CSSE Engineer). Because there is an assumed urgency when this exception process is used, approval of the proposed NCMR/Waiver may be made electronically. Copies of the approvals must be attached to the NCMR/Waiver during its active period and retained with the completed NCMR/Waiver filed by both the involved Quality and ECO Coordination organizations.

3.2.5 Part H—"Quality Control Follow-up:"

When an ECO is approved to correct the problem, it shall immediately supersede the NCMR/Waiver. In the blank following "ECO #", the approved ECO number should be entered.

4 USING THE ECO TO SUPERSEDE/CANCEL AN NCMR/WAIVER

ECOs that document a change being temporarily implemented under an NCMR/Waiver MUST contain the following information before being approved by the Product Change Team.

a. The Part Revision contained in the ECO for the corrected part should be the same as that identified in the NCMR/Waiver Form.

   If the Part Revisions are not the same, the ECO must describe the following.

   - All changes made under the NCMR/Waiver that resulted in the first Part Revision
   - Additional or different changes to be made to the product that will result in the second Part Revision

   All Part Revisions introduced into a product via an NCMR/Waiver must be identified in the ECO that officially documents the changes to the product. This is necessary to ensure that all Part Revisions assigned and marked on the product are accurately reflected in the product's Engineering documentation.

b. The Corrective Action Section of the ECO must include a corrective action which states "This ECO supersedes NCMR/W#_____ issued by (plant code)."

Each Part Revision and its related NCMR/Waiver number must be addressed on the ECO.

APPENDIX A REFERENCED DOCUMENTS

A.1 EL-Class Digital Documents

EL-Class Number	Document Title
76-65075-00	*Procedure for Processing Non-Conforming Material and In-Process Waiver*
EL-00012-00	*DEC STD 012-0 Part Identification Standard*
EL-00066-02	*DEC STD 066-2 Waivers to Digital Design Standards*
EL-00100-00	*DEC STD 100-0 Policy and Requirements for the Product Change Process*
EL-SM100-00	*DEC STD 100 ECO Process and Procedures*

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